



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/610,937	06/30/2003	Geoff Smith	WAB 03188	2532

7590 09/30/2005

JAMES RAY & ASSOCIATES
2640 Pitcairn Road
Monroeville, PA 15146

EXAMINER

COMPTON, ERIC B

ART UNIT	PAPER NUMBER
----------	--------------

3726

DATE MAILED: 09/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary**Application No.**

10/610,937

Applicant(s)

SMITH ET AL.

Examiner

Eric B. Compton

Art Unit

3726

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

1. The use of the trademarks Kynal and Kevlar has been noted in this application. See Specification, page 14, lines 8 and 10. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 6-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

These claims recite the trademarks Kynal and Kevlar. It is important to recognize that a trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. See definitions of trademark and trade name in MPEP § 608.01(v).

If the trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the

Art Unit: 3726

requirements of the 35 U.S.C. 112, second paragraph. *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. In fact, the value of a trademark would be lost to the extent that it became descriptive of a product, rather than used as an identification of a source or origin of a product. Thus, the use of a trademark or trade name in a claim to identify or describe a material or product would not only render a claim indefinite, but would also constitute an improper use of the trademark or trade name.

Claim Objections

4. Claim 16 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The term "plurality" in line 2 inherently includes "at least two."

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 3726

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-6 and 8-19 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S 4,739,828 to Bayer et al; DE 3927955 to Bayer; FR 2587468 to Allemandou; FR 2602580 to Valier; DE 3242072 to Kuchelmeis; & GB 2078361 to DELANAIR LIMITED.

Regarding claim 1, these references all disclose a method of securing a plurality of tubes into a non-metallic header, the method comprising the steps of;

- a) providing a predetermined plurality of tubes having a predetermined end configuration;
- b) providing a non-metallic header having a predetermined number of openings corresponding to said predetermined plurality of tubes, said predetermined plurality of openings having a predetermined configuration substantially identical to said predetermine end configuration of said predetermined plurality of tubes, said predetermined plurality of openings being disposed in said non-metallic header in a predetermined array, and
- c) securing an end of each of said predetermine plurality of tubes into a respective predetermined plurality of openings in said non-metallic header.

Note: the limitation in the abstract "a method of reducing weight" does not further limit the structure and is merely directed towards an intended use or purpose. If the body of a claim fully and intrinsically sets forth all of the limitations of the claimed invention, and the preamble merely states, for example, the purpose or intended use of

Art Unit: 3726

the invention, rather than any distinct definition of any of the claimed invention's limitations, then the preamble is not considered a limitation and is of no significance to claim construction. *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305, 51 USPQ2d 1161, 1165 (Fed. Cir. 1999). See also *Rowe v. Dror*, 112 F.3d 473, 478, 42 USPQ2d 1550, 1553 (Fed. Cir. 1997) ("where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention, the preamble is not a claim limitation"); *Kropa v. Robie*, 187 F.2d at 152, 88 USPQ2d at 480-81 (preamble is not a limitation where claim is directed to a product and the preamble merely recites a property inherent in an old product defined by the remainder of the claim). The above cited prior art is directed to providing an non-metallic (plastic) header, which is inherently weighs less than metal. See e.g., U.S. Pat 4,940,086, Col 1, lines 13-25 ("The effort by the automotive industry to reduce the weight of vehicles to thereby improve fuel efficiency has seen an increasing use of non-metallic materials in various parts of vehicles. Heat exchangers, more commonly termed radiators, are no exception. While metal materials are still employed in the cores of such heat exchangers because of their greater thermal conductivity over plastics, other heat exchanger components that do not require good thermal conductivity are being made of plastic. A primary example is the so-called tanks which are fitted to the heat exchanger core most typically by securement to the header plates which define the ends of the cores.)

Regarding claims 2-4, U.S. Pat. 4,739,828 to Bayer et al discloses providing the non-metallic header in a predetermined variety of shapes having a predetermined envelope size.

Regarding claims 5-6, the above cited prior art all discloses the header is plastic, which is a phenolic resin.

Regarding claims 8-9, U.S. pat. 4,739,828 to Bayer et al discloses that the tubes may have a configuration that is oblong. See Figure 6 and 9.

Regarding claims 10-13, DE 3927955 to Bayer discloses "The through pipe (14), the walls (6, 8) of the header tanks (3, 4) and the cover (5, 7) are fastened together by plastic deformation, by bonding with adhesive or by welding." Derwent English Abstract. Rolling is a plastic deformation process.

Regarding claims 14-15, FR 2587468 discloses adding a secondary bonding agent, e.g., an epoxy-resin adhesive, which utilizes a chemical bond. See Derwent English Abstract.

Regarding claim 16, the above cited prior art all provide at least two tubes.

Regarding claims 17-19, U.S. Pat. 4,739,828 to Bayer et al discloses the additional step of forming an annular groove in each of said respective predetermined plurality of openings in said non-metallic header for securing eh tubes with an internal sizing tool. See Fig. 2a – 2c.

7. Claims 1, 5-6, and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Pat. 6,554,929 to Lee; & EP 1116928 to PacFab, Inc.

Art Unit: 3726

Regarding claim 1, these references all disclose a method of securing a plurality of tubes into a non-metallic header, the method comprising the steps of;

- a) providing a predetermined plurality of tubes having a predetermined end configuration;
- b) providing a non-metallic header having a predetermined number of openings corresponding to said predetermined plurality of tubes, said predetermined plurality of openings having a predetermined configuration substantially identical to said predetermined end configuration of said predetermined plurality of tubes, said predetermined plurality of openings being disposed in said non-metallic header in a predetermined array, and
- c) securing an end of each of said predetermined plurality of tubes into a respective predetermined plurality of openings in said non-metallic header.

Regarding claims 5-6, the above cited prior art all discloses the header is plastic, which is a phenolic resin.

Regarding claim 16, the above cited prior art all provide at least two tubes.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 3726

9. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over the above cited prior art.

The cited prior art references used in the above rejections all disclose forming a header from plastic. However, they do not disclose the plastic is Kynal.

Regarding claim 6-7, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have formed the above prior art plastics headers from Kynal, since it is a durable plastic. *See In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960) (selection of a known plastic to make a container of a type made of plastics prior to the invention was held to be obvious). It is noted that while Applicant discussing Kynal as the preferred plastic material, he provides no evidence of benefits over the other types disclosed.

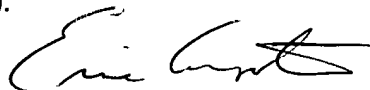
Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric B. Compton whose telephone number is (571) 272-4527. The examiner can normally be reached on M-F, 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David p. Bryant can be reached on (571) 272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3726

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Eric B. Compton
Primary Examiner
Art Unit 3726

ebc